



## U.S. Department of Justice

### Civil Rights Division

*Disability Rights Section*

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## Section 508 Resource Guide

The Architectural and Transportation Compliance Board ("Access Board") is responsible for developing technical and functional performance criteria for electronic and information technology covered by Section 508. Although the law itself does not include accessibility standards, it does provide some guidance on its coverage. First, Section 508 does not require Federal agencies or departments to provide special accessible equipment for people with disabilities at any location other than where electronic and information technology is provided to the public. Second, Section 508 does not require the installation of specific accessibility-related computer software or hardware at the workstation of a non-disabled employee.

In general, electronic and information technology becomes accessible to persons with disabilities when it can be used or accessed through more than one sense or ability. For instance, an electronic mail system that cannot be adapted for use with a screen reader may be inaccessible to a person with a visual impairment. In this example, Section 508 would not require the agency to provide electronic screen reading software or hardware at each employee's workstation; however, Section 508 may require that any new electronic mail software be compatible with screen reading software and hardware. Similarly, an Internet website that can only be used with a computer mouse may be inaccessible to people who cannot use a mouse because of dexterity or visual impairments. In this example, Section 508 may require that the agency also maintain a separate website that is compatible with Internet browser software that can be operated with a keyboard cursor.

Both the Access Board and the General Services Administration are responsible for providing technical assistance for compliance with Section 508. In February 2000, the Access Board will issue regulations detailing requirements for Federal agencies. Until that time, the following resources may be useful in developing, procuring, maintaining, and using accessible electronic and information technology. This listing does not constitute an endorsement of these resources by the Department of Justice and is intended only to provide examples of a range of possible resources. The Department of Justice will periodically update this list of resources on its Internet website at <http://www.usdoj.gov/crt/508>.

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#### 1. OTHER GOVERNMENT AGENCIES

Other government agencies have a wealth of information for making electronic and information technology accessible to persons with disabilities.

##### a. Access Board

The Access Board is responsible for developing standards for compliance with Section 508. In addition, the Access Board has developed accessibility standards for other Federal legislation. The Access Board maintains a website at <http://www.access-board.gov>.

##### b. Department of Education

The Department of Education has been a leader in assisting persons with disabilities through technological solutions. The Department of Education has also been at the forefront of evaluating software for accessibility. The Department of Education maintains a website at <http://www.ed.gov>.

##### c. General Services Administration (CITA)

The Center for Information Technology Accommodation ("CITA") of the U.S. Government's General Services Administration ("GSA") is nationally recognized as a model demonstration facility for instituting accessible information environments, services, and management practices. CITA shares the important goal of achieving "maximally accommodating" public information infrastructures with an informal, growing network of public and private sector partners. CITA maintains a website at <http://www.itpolicy.gsa.gov/cita/index.htm>.

#### 2. GENERAL INFORMATION ABOUT SECTION 508

The following websites provide general information about Section 508.

##### a. Section 508, 29 U.S.C. § 798

The text of Section 508 may be found at the Department of Justice's website at <http://www.usdoj.gov/crt/508>.

##### b. Definition of "Information Technology" (Clinger-Cohen Act of 1996)

Section 508 of the Rehabilitation Act requires that the Access Board issue standards defining "electronic and information technology that is consistent with the definition of information technology specified in Section 5002(3) of the Clinger-Cohen Act of 1996" (40 U.S.C. 1401(3)). The text of that definition can be found at the Department of Justice's website at <http://www.usdoj.gov/crt/508>.

c. Questions and Answers Regarding Section 508 (Department of Education)

The Department of Education has prepared an information “Questions and Answers” document regarding Section 508 of the Rehabilitation Act. A copy of this publication is available from the Department of Education and can be found at the Department of Education’s website at <http://www.ed.gov>.

d. Managing Information Resources for Accessibility

This manual, prepared by GSA's Center on Information Technology Accommodation ("CITA"), covers policy issues and practical concerns for information accessibility to accommodate users with disabilities. A copy of this manual is available at <http://www.itpolicy.gsa.gov/cita/front.htm>.

3. GENERAL INFORMATION ABOUT ACCESSIBLE ELECTRONIC AND INFORMATION TECHNOLOGY

The following resources provide general information about accessible electronic and information technology.

a. Trace Research and Development Center

The Trace Research and Development Center of the University of Wisconsin- Madison develops universal design principles incorporating accessibility for persons with disabilities. The Trace Research and Development Center maintains a website at <http://trace.wisc.edu>.

b. Archimedes Project (Stanford University)

The Archimedes Project is a multi-disciplinary research group devoted to ensuring universal access to information regardless of an individual’s needs, abilities, or preferences. Current research projects include development of the Total Access System (TAS), which will provide universal access to any computer-based equipment, and the development of various “Accessors,” which will provide access to computer information for people with a multitude of disabilities. The Archimedes Project maintains a website at <http://www-csli.stanford.edu/arch/arch.html>.

4. INTERNET ACCESSIBILITY

Several private and public organizations provide guidance for developing accessible web pages.

- a. World Wide Web Consortium's Web Accessibility Initiative (WAI)  
The Web Accessibility Initiative works with other organizations for the development of web accessibility standards (including guidelines for page authoring) and educates, researches, and develops web accessibility standards. The Web Accessibility Initiative maintains a website with useful information at <http://www.w3.org/WAI>.
- b. City of San Jose WWW Page Accessibility Standard  
In 1996, San Jose, California, developed basic web page accessibility standards that have been designated as a "best practices" model by the League of California Cities. These standards can be found at <http://www.ci.san-jose.ca.us/oaacc/disaces.html>.
- c. Trace Research and Development Center  
The Trace Research and Development Center addresses web accessibility and includes information about the compatibility of browsers with adaptive hardware and software. The Trace Center also provides links to other organizations involved in the development of standards for accessible website design. The Trace Center maintains a website at <http://trace.wisc.edu>. In addition, the Trace Center, in conjunction with Adobe Systems, hosts a service for conversion of .pdf files (a multi-platform document format used on many Internet web sites) to either plain text or html format via e-mail. Information regarding this service can be found at <http://access.adobe.com>, a website maintained by Adobe Systems, Incorporated.
- d. Center for Applied Special Technology ("CAST")  
CAST is an educational, not-for-profit organization that uses technology to expand opportunities for all people, including those with disabilities. CAST maintains a dynamic website called "Bobby" that analyzes web pages currently on the Internet for their compliance with web accessibility standards and provides a summary of any problems that may be encountered by visitors to the website. CAST's homepage can be found at <http://www.cast.org>.

- e. IBM Special Needs Systems  
IBM has developed and collected useful information for ensuring that computer information is accessible to persons with disabilities. Included in their webpage is information for making web pages and Java<sup>™</sup> applications (a popular computer language used commonly in Internet websites) accessible. Their website can be found at <http://www.austin.ibm.com/sns/access.html>.
- f. Government of Canada  
The Canadian Government has also been working on providing access to persons with disabilities to government services or activities offered through the Internet. Useful and up-to-date information about their efforts can be found at a website <http://w3.pwgsc.gc.ca/forum/>.
- g. Adobe Systems  
Adobe Systems Incorporated manufactures Adobe Acrobat, a program used to create and read so-called .pdf files (a multi-platform document format that is becoming increasingly popular on Internet web sites). To assist users with disabilities accessing .pdf files, Adobe Systems maintains a website at <http://access.adobe.com> that discusses conversion of .pdf files to more accessible formats. In addition, Adobe Systems, in conjunction with the Trace Research and Development Center, has developed a service for conversion of .pdf files to other file formats via e-mail.
- h. Lynx Viewer  
Lynx is a web browser that displays web-based information in text-only format. It is widely used by persons using adaptive equipment and software in order to access Internet web pages. Information about Lynx is available at <http://lynx.browser.org>. As an introduction to Lynx, a basic Lynx Viewer is available at <http://www.delorie.com/web/lynxview.html>.

5. PROCUREMENT ISSUES

- a. Managing Information Resources for Accessibility  
This manual, prepared by GSA's Center on Information Technology Accommodation ("CITA"), covers policy issues and practical concerns for information accessibility to accommodate users with disabilities. This manual also includes clauses from non-binding Federal Information Resources Management Regulations (FIRMR) addressing procurement of accessible technology. A copy of this manual is available at

<http://www.itpolicy.gsa.gov/cita/front.htm>.

- b. Office of Management and Budget Circular A-130  
This document contains excerpts from the Federal government's policy directive for promoting the application of technology to improve the use and dissemination of information by Federal agencies. It states that Federal information must be made accessible to members of the public with disabilities. A copy of this document can be found at GSA's website at <http://www.itpolicy.gsa.gov/library.htm>.

6. SOFTWARE DESIGN AND DEVELOPMENT

- a. Requirements for Accessible Software Design (Department of Education)  
The Department of Education has established software requirements that it is now using in all of its contracts to ensure the accessibility of its programs and activities to individuals with disabilities. These standards can be found at <http://ocfo.ed.gov/coninfo/clibrary/software.htm>.
- b. Trace Research and Development Center  
The Trace Research and Development Center has also researched and developed standards for accessible software. The Trace Research and Development Center maintains a website at <http://trace.wisc.edu>, which includes standards for software accessibility and links to other organizations that may assist in making operating systems and computer software accessible for persons with disabilities.
- c. National Software Testing Labs ("NSTL")  
NSTL provides testing services on a contract basis to hardware manufacturers, software developers and publishers, corporations, and government agencies. NSTL provides a website that includes contact information and a description of their services at <http://www.nstl.com>.

7. TELECOMMUNICATIONS ISSUES

By February 7, 2000, the Access Board will determine the manner in which telecommunications equipment must be accessible to persons with disabilities under Section 508. Standards developed by the Access Board for compliance with the Telecommunications Act of 1996 -- which affects the design, development, and fabrication of telecommunications equipment and customer premises equipment -- provide some interim guidance. In addition, the Federal Communications Commission has adopted rules regarding closed captioning.

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- a. Telecommunications Act Accessibility Guidelines.  
The Access Board has developed guidelines for compliance with the Telecommunications Act of 1996. These standards include design features that affect the usability of telecommunications equipment by persons with disabilities. The standards can be accessed at <http://www.access-board.gov/rules/telfinl2.htm>.
  - b. Federal Communication Commission Closed Captioning Rules  
Pursuant to Section 305 of the Telecommunications Act, the Federal Communications Commission has required closed captioning of televised information and has encouraged use of EIA-608 standards for closed captioned programs. The text of the rule can be accessed from the Federal Communications Commission at <http://www.fcc.gov/dtf/caption.html>.
8. **INFORMATION/TRANSACTION MACHINES (ITM's)**  
Information/Transaction machines (ITM's) include ATM's, fare vending machines, informational kiosks, and other unattended machines for conducting transactions or providing information. Of course, because ITM's are physical objects, compliance with Section 508 may also require that the physical design of the ITM's comports with hardware design standards.
  - a. The Access Board  
The Access Board has been researching the accessibility of the ITM's in cooperation with disability rights organizations and the Trace Research and Development Center. A draft copy of their final report can be accessed from their website at <http://www.access-board.gov>.
  - b. Trace Research and Development Center  
The Trace Research and Development Center is currently researching the accessibility of ITM's through a grant from the Access Board. The Trace Research and Development Center maintains a website at <http://trace.wisc.edu>.
9. **HARDWARE DESIGN STANDARDS**  
Electronic and information technologies may also take the form of physical objects, such as fax machines, telephones, and ITM's. As noted above, Section 508 does not require the installation of specific adaptive hardware or software at the workstation of a non-disabled Federal employee. When this technology may be used by more than one employee or may be used by members of the public, however, Section 508 may require that this technology be accessible to persons with disabilities.

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a. The Access Board

The Access Board has established guidelines for compliance with the Americans with Disabilities Act (ADA) that includes specific standards for reach ranges, controls and operating mechanisms, and alarms, which may be useful in developing the physical design of hardware. These guidelines can be found on the Access Board's website at <http://www.access-board.gov/bfdg/adaag.htm>.

b. IBM Special Needs Systems

IBM has developed and collected useful information for ensuring that computer hardware and software is accessible to persons with disabilities. The appropriate website can be found at <http://www.austin.ibm.com/sns/access.html>.